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SMART GROWTH AND ECONOMIC SUCCESS: THE BUSINESS CASE

Office of Sustainable Communities
Smart Growth Program

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EPA Project Leads: Melissa Kramer and Lee Sobel

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This paper is part of a series of documents on smart growth and economic success. Other papers in the series can be found at *www.epa.gov/smartgrowth/economic_success.htm*.

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Executive Summary

Many companies representing a diversity of business types have recognized that compact, walkable downtowns are good for business and are choosing their operating locations accordingly. Locations with housing and transportation options, a mix of uses close together, and a high quality of life can improve environmental outcomes while providing economic advantages for businesses, including:

- **Increased productivity and innovation**. Easier access to labor, suppliers, and supporting businesses improves productivity. An environment that enables and encourages social interaction both within and among firms leads to more idea exchange, innovation, and collaboration. Making it easy for employees to incorporate physical activity into their daily commutes improves their health and well-being, reducing absenteeism and health care costs.

- **Improved ability to compete for labor**. Many professionals and recent college graduates prefer to live near where they work and to be able to walk to shops, restaurants, and entertainment. Low-wage workers need access to affordable housing near jobs and transportation options. Businesses in walkable central business districts near transit can meet the needs of both these groups, making it easier to recruit employees.

- **Stronger retail sales**. Stores find it easier to attract customers when they are in locations that can be reached in multiple ways and provide a diverse, vibrant environment.

A strong indicator of the business advantages of centrally located, compact, walkable places is the trend of corporations moving to these locations from outlying suburbs. A number of companies have recognized that central business districts in cities and small towns can provide an atmosphere that stimulates innovation and attracts the workers they need.

I. Introduction

Downtown Raleigh, North Carolina, had been booming with growth for several years when, in 2011, two of its corporate anchors were purchased by rival firms with headquarters far from Raleigh. Although both anchor companies had recently built new offices and were major players in the downtown's revitalization, suddenly their future in the city was in doubt. Indeed, one of the companies decided to vacate its large office building downtown as jobs were cut following its acquisition. Concern grew among city leaders and residents about the loss of jobs and empty office space. But downtown Raleigh is still growing today in part because of technology companies that see benefits to being downtown.

For example, Red Hat Software moved to downtown Raleigh after growing up in the technology hotbed of North Carolina's Research Triangle region. The region's office parks, with buildings in isolated clusters separated from homes, stores, and restaurants, nurtured many computer and medical technology firms to national prominence, so it was surprising to some when Red Hat announced it would relocate. The chief executive officer recognized that offering an attractive workplace can help a firm compete for talented people, saying, "Combining the Triangle's renowned educational resources with the energy and culture of downtown Raleigh made this location ideal for both Red Hat and our associates."[1] Red Hat is responding in part to Raleigh's efforts to cultivate an environment where innovative companies and their employees would feel welcome. As part of an economic development plan to attract and retain businesses in the city's older commercial districts and corridors, Raleigh officials are encouraging mixed-use development, improving streetscapes to encourage walking, and investing in better transit in the downtown.[2]

Exhibit 1. Downtown Raleigh, North Carolina. Raleigh hosts festivals and events that attract people to downtown. Restaurants, shops, services, and cultural institutions make it an attractive place to live, work, and visit.
Photo source: orionpozo via flickr.com.

Revitalized town centers and Main Streets also attract businesses in small towns and rural areas. Silver City, New Mexico, whose economy was tethered to the mining industry's boom-and-bust cycles, knew all too well that the supplies of silver and copper that attracted people and services to the

[1] WNCN. "Red Hat Announces Finalized Plans to Move Headquarters to Raleigh." January 6, 2012. http://www.wncn.com/story/20917292/red-hat-announces-finalized-plans-to-move-headquarters-to-raleigh.
[2] City of Raleigh. *The 2030 Comprehensive Plan for the City of Raleigh*. 2009. http://www.raleighnc.gov/business/content/PlanLongRange/Articles/2030ComprehensivePlan.html.

area could not last forever. In the early 1980s, city leaders and residents recognized the need to diversify the economy but realized that attracting large manufacturers would be challenging because of the area's relative isolation. In 1985, Silver City formed its Main Street program to capitalize on its primary assets: historic buildings and a beautiful natural setting. From 1985 to 2011, 151 buildings were rehabilitated, the town gained 49 new businesses, and the office vacancy rate declined from 40 percent to 13 percent.[3] Improvements to the town's infrastructure and historic buildings made it a destination for arts- and culture-based tourism as well as small-scale manufacturing. For example, Syzygy Tileworks, a handmade tile manufacturer, employs more than 30 people at the site of a former car dealership across the street from city hall. Custom Steelworks, in the warehouse district at the south end of downtown, fabricates heavy structural steel and specialized parts for local mining operations as well as home accessories made of iron, steel, and other metals.[4]

These companies have something in common: They chose their operating locations because they recognized that compact, walkable, downtown centers would be good for their business.[5] Locations with housing and transportation options, a mix of uses close together, and a high quality of life follow the principles of smart growth development (see Exhibit 2). Places with these characteristics can be found in rural environments, cities, suburbs, and small towns. This paper uses the term *smart growth places* to capture the diversity of communities that follow smart growth principles.

Businesses that locate in smart growth places can help protect environmental resources—for example, by reducing air pollution from vehicles by encouraging walking, bicycling, or taking transit; building more compactly to protect

Exhibit 2: Smart Growth Principles

In 1996, the Smart Growth Network, made up of organizations representing diverse interests including real estate, the environment, development, affordable housing, government, and others, developed 10 smart growth principles based on experiences of communities around the country:

- Mix land uses.
- Take advantage of compact building design.
- Create a range of housing opportunities and choices.
- Create walkable neighborhoods.
- Foster distinctive, attractive communities with a strong sense of place.
- Preserve open space, farmland, natural beauty, and critical environmental areas.
- Strengthen and direct development towards existing communities.
- Provide a variety of transportation choices.
- Make development decisions predictable, fair, and cost effective.
- Encourage community and stakeholder collaboration in development decisions.

Smart Growth Network. "Why Smart Growth?" http://www.smartgrowth.org/why.php. Accessed October 12, 2012.

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[3] National Trust for Historic Preservation. "Silver City MainStreet Project." http://www.preservationnation.org/main-street/awards/gamsa/2011-gamsa/silver-city-mainstreet.html. Accessed October 12, 2012.

[4] Personal communication with Nicholas Seibel, Manager, Silver City MainStreet Project, on March 11, 2013.

[5] Smart growth strategies deal with the physical characteristics and location of specific places. This paper addresses the potential benefits to a business of choosing a specific location *within* a region. Regional or state differences such as corporate income tax rates, worker's compensation insurance rates, and right to work rules are not considered here. While such factors can be important influences for some industries and companies, this paper assumes that they are consistent across the region being considered.

ecologically sensitive land; or incorporating natural ways of collecting and filtering stormwater runoff.[6] However, locating in compact, walkable, mixed-use business districts that are centrally located within the larger region can also bring economic advantages for businesses, including:

- **Increased productivity and innovation**. Easier access to labor, suppliers, and supporting businesses improves productivity. An environment that enables and encourages social interaction both within and among firms leads to more idea exchange, innovation, and collaboration.[7] Making it easy for employees to incorporate physical activity into their daily commutes improves their health and well-being, reducing absenteeism and health care costs.
- **Improved ability to compete for labor**. Many professionals and recent college graduates prefer to live near where they work and to be able to walk to shops, restaurants, and entertainment. Low-wage workers need access to affordable housing near jobs and transportation options. Businesses in walkable central business districts near transit can meet the needs of both these groups, making it easier to recruit employees.
- **Stronger retail sales**. Stores find it easier to attract customers when they are in locations that can be reached in multiple ways and provide a diverse, vibrant environment.

Thus, for many types of businesses, the advantages of choosing a regional location with smart growth features can increase profits. This document first discusses these advantages in greater depth and then provides examples of companies that have recognized these advantages and made a locational decision accordingly.

[6] For more information on the environmental benefits of smart growth strategies see: EPA. "Environmental Benefits of Smart Growth." http://www.epa.gov/smartgrowth/topics/eb.htm. Accessed October 12, 2012.

[7] Webber, Chris, and Glenn Athey. *The Route to Growth: Transport, Density and Productivity*. Centre for Cities. 2007. http://www.centreforcities.org/assets/files/pdfs/route_to_growth.pdf.

II. Smart Growth Places Can Increase Productivity and Innovation

Smart growth strategies create environments that encourage the geographic concentration of people and businesses. Research on the economic benefits of geographic concentration (referred to as *agglomeration* in the literature) has shown that it increases the productivity and innovation of businesses by improving access to:

- Educated and skilled labor.
- Suppliers and supporting businesses.
- Outside knowledge gained by face-to-face interactions among workers at different firms.[8,9]

The basic driver of these benefits is increased density of people and businesses. A well-established body of literature has demonstrated a link between metropolitan density and economic productivity.[10,11] A 2012 study estimated the size of the effect to be 2 to 4 percent higher economic productivity in a metropolitan area with twice the population density. This influence of density on productivity is stronger in areas with higher educational levels—the productivity advantage in more highly educated regions is about two times larger than the average—and for knowledge-based industry sectors such as professional services, arts and entertainment, information, and finance.[12]

Metropolitan density appears to enhance innovation as well as productivity. An area with twice the number of jobs as another that is similar in all other respects generates 20 percent more patents per worker.[13] Other research provides further evidence that greater population density is associated with greater patent activity and that most U.S. cities have a density well below the optimal for maximum patent production.[14] In addition, the density of employees in creative professions such as engineering, science, art, architecture, and athletics is correlated with the number of patents generated by a region.[15]

The success of central business districts[16] around the world has shown the benefits of enhanced productivity and innovation achieved through geographic concentration. However, since the middle of the last century, suburban, single-use office parks have also developed to take advantage of the benefits

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[8] Ibid.

[9] Rosenthal, Stuart S., and William C. Strange. "The Micro-Empirics of Agglomeration Economies." In *A Companion to Urban Economics*, by Richard J. Arnott and Daniel P. McMillen (eds.) 7-23. Blackwell Publishing Ltd. 2006.

[10] Puga, Diego. "The Magnitude and Causes of Agglomeration Economies." *Journal of Regional Science* 50(1): 203-219. 2010.

[11] For a discussion of how to estimate the benefits of firms' locating in already-developed city centers, see EPA. *Handbook on the Benefits, Costs, and Impacts of Land Cleanup and Reuse.* 2012. http://yosemite.epa.gov/ee/epa/eed.nsf/pages/LandHandbook.html.

[12] Abel, Jaison R., Ishita Dey, and Todd M. Gabe. "Productivity and the Density of Human Capital." *Journal of Regional Science*. 52(4):562-586. 2012.

[13] Carlino, Gerald A., Satyajit Chatterjee, and Robert M. Hunt. "Urban Density and the Rate of Invention." *Journal of Urban Economics*. 61(3):389–419. 2007.

[14] Sedgley, Norman and Bruce Elmslie. "Do we Still Need Cities? Evidence on Rates of Innovation from Count Data Models of Metropolitan Statistical Area Patents." *American Journal of Economics and Sociology* 70(1): 86-108. 2011.

[15] Knudsen, Brian, Richard Florida, Kevin Stolarick, and Gary Gates. "Density and Creativity in US Regions." *Annals of the Association of American Geographers* 98(2): 461-478. 2008.

[16] A central business district is the part of a city or town where retail and office buildings congregate. It typically is centrally located and contains the highest density and tallest buildings in the city or town. It is usually referred to as "downtown."

of geographic concentration of jobs within an industry, typified by developments like those housing high-tech businesses in Silicon Valley, California, and Tysons Corner, Virginia. Relatively little research has been done on how the economic benefits of geographic concentration vary with differences commonly seen between single-use office parks outside of central business districts and traditional, mixed-use downtowns. One study in King County, Washington, found that the most important factors for determining the assessed property value[17] of office developments were, in order of importance, the intensity of development (measured by the floor area ratio), a central location within the region (measured by distance to downtown Seattle), and the size of the office cluster. Notably, location within a central business district was more important than clustering. Within the city of Seattle, office rents in the central business district were 96 percent greater than in office clusters outside the central business district. Within King County (but outside the city limits), office rents in the central business district of Bellevue were 40 percent greater than in office clusters outside Bellevue.[18]

Exhibit 3: Harbor Steps in downtown Seattle. The steps leading from the Central Waterfront to the Seattle Art Museum host a lively atmosphere that supports the businesses located along it and provides amenities for office employees.
Photo source: Payton Chung via flickr.com.

The location of geographic concentrations of businesses is thus important. Although office rents and sales prices might be higher, companies choosing central business districts can expect to reap greater economic benefits from co-locating with other businesses than they would in single-use office parks on the outskirts of cities. In addition, locating within a dense metropolitan region is not sufficient to ensure access to the region's employees if travel distances, congestion, and lack of alternatives to cars limit people's ability to reach a particular location. Centrally located, compact places served by public transit are easier for people from across an entire region to reach. The central location minimizes the distance to the company for the greatest number of people across the region, and transit systems can efficiently

[17] In Washington state, property value assessments are based on the expected full market value of the land and improvements.
[18] Sohn, Dong-Wook, and Anne V. Moudon. "The Economic Value of Office Clusters: An Analysis of Assessed Property Values, Regional Form, and Land Use Mix in King County, Washington." *Journal of Planning Education and Research* 28(1): 86-99. 2008.

transport people from outlying neighborhoods and suburbs into a central employment district.[19] Across the 100 largest metropolitan areas, 95 percent of jobs within cities are accessible by public transit, while in suburbs, only 64 percent are (Exhibit 4). The difference is greatest in the south and midwest.

Geography	City			Suburb		
	Total Jobs	Covered Jobs	Rate	Total Jobs	Covered Jobs	Rate
All 100 metro areas	38,344,050	36,308,908	94.7%	64,634,129	41,392,044	64.0%
Midwest	7,046,221	6,817,863	96.8%	13,911,008	7,864,253	56.5%
Northeast	7,684,947	7,672,237	99.8%	16,237,992	11,582,642	71.3%
South	13,055,197	11,756,520	90.1%	20,265,413	10,552,775	52.1%
West	10,557,685	10,062,288	95.3%	14,219,716	11,392,374	80.1%

Exhibit 4. Share of jobs covered by fixed-route transit service.
Source: Tomer, Adie. *Where the Jobs Are: Employer Access to Labor by Transit*. Brookings. 2012.

Companies can reap other productivity benefits from centrally located, compact, and walkable places that are not available in areas where a car is the only way to reach the business. Not only do companies get better access to employees from across the entire region, but those employees have commuting options that can improve their health, which can reduce absenteeism and lower health care costs. A review of research on physical activity, absenteeism, and productivity found that an increase in physical activity of more than one hour per week is associated with lower rates of absenteeism.[20] If businesses locate in smart growth places, many employees could achieve this level of physical activity through walking or bicycling to their jobs or to a local transit station on their daily commute. A survey of more than 1,200 employees at three Dutch companies found that those who regularly bicycled to work had significantly lower rates of sickness-related absenteeism than non-cyclists even after controlling for personal, health, and lifestyle factors that influence whether people bike to work. Rates were lower the more often and the longer the distance traveled by bike.[21] Access to a variety of transportation options also can reduce absenteeism by providing employees alternatives to get to work on time when weather, traffic delays, or car breakdowns make travel by one mode difficult or impossible.

Making it easy for employees to incorporate physical activity into their daily commutes can reduce health care costs by improving their health. An analysis of eight medical studies involving over 173,000 participants found that commuting that incorporates walking and bicycling was associated with an overall 11 percent reduction in cardiovascular risk.[22] Another study found that the benefits of increased physical activity from bicycling were nine times greater than the risks from accidents and increased inhalation of air pollution compared to driving a car.[23] A literature review of the health effects of

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[19] Belzer, Dena, Sujata Srivastava, and Mason Austin. *Transit and Regional Economic Development.* Center for Transit-Oriented Development. 2011. http://www.reconnectingamerica.org/resource-center/browse-research/2011/transit-and-regional-economic-development.

[20] Davis, Adrian, and Marcus Jones. *Physical Activity, Absenteeism and Productivity: An Evidence Review*. TRL Limited and JMP Consulting for Transport for London. 2007. http://www.tfl.gov.uk/assets/downloads/Physical-activity-absenteeism-and-productivity-evidence-review.pdf.

[21] Hendriksen, Ingrid J.M., Monique Simons, Francisca Galindo Garre, and Vincent H. Hildebrandt. "The Association Between Commuter Cycling and Sickness Absence." *Preventive Medicine* 51(2): 132-135. 2010.

[22] Hamer, Mark, and Yoichi Chida. "Active Commuting and Cardiovascular Risk: A Meta-Analytic Review." *Preventive Medicine*. 46(1):9-13. 2008.

[23] De Hartog, Jeroen Johan, Hanna Boogaard, Hans Nijland, and Gerard Hoek. "Do the Health Benefits of Cycling Outweigh the Risks?" *Environmental Health Perspectives* 118(8): 1109-1116. 2010.

commuting to work (or to public transit) by walking or bicycling found that it is associated with better health, lower levels of obesity, and improved social cohesion.[24] For example, a study in Charlotte, North Carolina, found that people who commuted by light rail had a reduced body mass index and reduced odds of becoming obese over time, likely from physical activity involved in walking or biking to and from stations.[25] Another study estimated public health care savings from the light rail system over nine years at $12.6 million.[26] Statewide studies in Wisconsin[27] and Iowa[28] have documented the substantial savings in health care costs that increased levels of bicycle commuting could produce. In addition, when walking and bicycling trips replace car trips, air pollution drops, which reduces respiratory and other illnesses in the region as a whole. A study of 11 Midwestern metropolitan areas found that replacing 50 percent of short automobile trips with bicycling would produce nearly $9 billion in net benefits, including $4.9 billion from reductions in adverse health impacts from ozone and fine particulate matter pollution and $3.8 billion from health benefits due to increased physical activity. In addition, improved air quality would lead to 608 fewer deaths in the region per year, and increased exercise would lead to 687 fewer deaths per year.[29] Companies can share in these benefits through reduced employee health care costs and lower rates of absenteeism.

Exhibit 5: Light rail in Charlotte, North Carolina. Riders on the LYNX light rail system in Charlotte can help maintain a healthy body weight by walking or biking to stations. Businesses can benefit from being close to stations because employees are healthier and enjoy having the option of getting to work without a car.
Photo source: David Wilson via flickr.com.

[24] Newman, Peter, and Anne Matan. "Human Mobility and Human Health." *Current Opinion in Environmental Sustainability.* 4:420-426. 2012.

[25] MacDonald, John M., Robert J. Stokes, Deborah A. Cohen, Aaron Kofner, and Greg K. Ridgeway. "The Effect of Light Rail Transit on Body Mass Index and Physical Activity." *American Journal of Preventive Medicine* 39(2): 105-112. 2010.

[26] Stokes, Robert J., John MacDonald, and Greg Ridgeway. "Estimating the Effects of Light Rail Transit on Health Care Costs." *Health & Place* 14(1):45-58. 2008.

[27] Grabow, Maggie, Micah Hahn, and Melissa Whited. *Valuing Bicycling's Economic and Health Impacts in Wisconsin*. The Nelson Institute for Environmental Studies, Center for Sustainability and the Global Environment, University of Wisconsin-Madison. 2010. http://www.sage.wisc.edu/igert/download/bicycling_final_report.pdf.

[28] Bowles, Brian, et al. *Economic and Health Benefits of Bicycling in Iowa*. Sustainable Tourism and Environment Program, University of Northern Iowa. 2011. http://www.uni.edu/step/reports/economic_health_benefits_of_bicycling.pdf.

[29] Grabow, Maggie L., Scott N. Spak, Tracey Holloway, Brian Stone Jr., Adam C. Mednick, and Jonathan A. Patz. "Air Quality and Exercise-Related Health Benefits from Reduced Car Travel in the Midwestern United States." *Environmental Health Perspectives*. 120(1):68-76. 2012.

III. Smart Growth Places Can Better Compete for Labor

Compact central business districts and town centers typically offer a variety of goods and services, convenience, exposure to new and different experiences, and a wide range of opportunities for professional pursuits and personal interests.[30] These amenities can help attract talented workers, which can provide a competitive advantage to businesses.

Businesses in areas with little to no affordable housing and few transportation options can find it difficult to attract low-wage workers. Across the country's largest metropolitan areas, 10 percent of households do not own a car. Even for those that do, congestion can limit the geographical area from which workers are willing to commute and require employers to pay higher wages.[31] Some companies in suburban campuses even take on the expense of providing private transportation options to attract and keep employees—expenses that reduce the value of any rent savings. For example, for employees commuting to its Silicon Valley campus, Google provides bus service that covers more miles than the San Francisco Bay Area Transit System.[32]

Attracting skilled labor can also be challenging for businesses. As the baby boom generation retires from the labor force, global competition continues to intensify, and new technologies emerge in the workplace, companies will increasingly need educated workers.[33] Research shows that someone with a bachelor's or master's degree is 10 percent more likely to work in a central city than a suburban area. Someone with a professional degree is 20 percent more likely. Evidence suggests that central cities tend to have more highly educated workforces in part because such workers prefer living in central cities over suburbs.[34] In the Washington, D.C., metropolitan region, the most walkable neighborhoods have close to twice the percentage of people with advanced graduate or professional degrees (27.8 percent) as the region as a whole (14.8 percent), while the least walkable neighborhoods fall well below the regional average (2.3 percent).[35] A 2013 real estate report notes the trend of biotech and pharmaceutical companies moving from suburban campuses to cities to better attract top Ph.D. job applicants.[36]

Several studies have documented the appeal of smart growth developments. A 2002 survey of 2,010 adults in California and a 2007 survey of 1,013 adults in the Southwest (Texas, Arizona, New Mexico, and Nevada) asked respondents to choose between living in a small home with a small backyard and a short

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30 Cortwright, Joseph. *City Advantage*. CEOs for Cities. 2007. http://www.ceosforcities.org/work/city_advantage.

31 Tomer, Adie. *Where the Jobs Are: Employer Access to Labor by Transit*. Brookings. 2012. http://www.brookings.edu/research/papers/2012/07/11-transit-jobs-tomer.

32 Bernard, Murrye. "Reverse Corporate Creep." *Architect*. September 26, 2012. http://www.architectmagazine.com/architecture/reverse-corporate-creep_1.aspx.

33 Cortwright, Joseph. *The Young and Restless in a Knowledge Economy.* 2005. http://documents.scribd.com.s3.amazonaws.com/docs/5lafnpazr41jeglo.pdf?t=1334675676.

34 Sander, William, and William A. Testa. "Education and the Location of Work: A Continued Economic Role for Central Cities?" *The Annals of Regional Science.* 2012. DOI 10.1007/s00168-012-0506-4.

35 Leinberger, Christopher B., and Mariela Alfonzo. *Walk this Way: The Economic Promise of Walkable Places in Metropolitan Washington, D.C.* Brookings Institution. 2012. http://www.brookings.edu/research/papers/2012/05/25-walkable-places-leinberger.

36 Urban Land Institute. "Emerging Trends in Real Estate 2013." 2012. http://www.uli.org/emerging-trends/emerging-trends-in-real-estate-2013.

commute to work or a large home with a large backyard and a long commute to work. In both surveys, more respondents chose the small home with a short commute. About half of the respondents in both cases chose a mixed-use neighborhood where they could walk to stores, schools, and services over a residential-only neighborhood where they would have to drive to stores, schools, and services. One-third of the respondents in both surveys favored a high-density neighborhood with public transit over a low-density neighborhood where they would have to drive a car.[37] A national survey representative of U.S. households conducted in 2003 and 2005 found that in 2003, 44 percent of people wanted to live in a traditional neighborhood with a mix of residential and commercial uses where they could easily walk or bike to destinations. By 2005, that had grown to 50 percent, with college graduates showing more support than those who had not graduated from college.[38]

Educated young adults in particular often prefer to live and work in compact, centrally located neighborhoods with a diverse range of shopping, dining, and entertainment experiences close at hand.[39] Analysis of U.S. Census Bureau data found that in aggregate, between 2000 and 2009, the number of college-educated 25- to 34-year-olds increased twice as fast in the close-in neighborhoods of the nation's 51 largest metropolitan areas as in the other parts of these metropolitan areas.[40] These preferences have increased sharply over just a single decade. In 2000, college-educated 25- to 34-year-olds were about 61 percent more likely than their peers with less education to prefer close-in neighborhoods. In 2009, they were 94 percent more likely.

Quicken Loans' founder and chairman moved thousands of employees to a new headquarters in downtown Detroit saying, "People in their 20s and 30s, the best and brightest coming out of our universities, the vast majority of them want to be in a cool urban core in a hip city. Period. So, if we're going to retain and maintain talent in our companies and have innovative creative people, we've got to make sure that we're in the right locations that are going to generate the interest of those people" (Exhibit 6).[41]

Real estate trends reflect these preferences. Infill locations in walkable places with good transit access continue to attract tenants, driving apartment vacancy rates below their 10-year average.[42] In numerous and varied regions across the United States, central business districts and popular urban corridors have fared better than suburbs in recovering from the real estate downturn that began in 2007.[43] Some property owners in those suburbs are now trying to retrofit their properties to offer some of the amenities readily available in central business districts. For example, in response to vacancy rates

[37] Lewis, Paul G., and Mark Baldassare. "The Complexity of Public Attitudes Toward Compact Development." *Journal of the American Planning Association* 76(2): 219-237. 2010.
[38] Handy, Susan, James F. Sallis, Deanne Weber, Ed Maibach, and Marla Hollander. "Is Support for Traditionally Designed Communities Growing? Evidence from Two National Surveys." *Journal of the American Planning Association* 74(2): 209-221. 2008.
[39] Urban Land Institute, op cit.
[40] Cortwright, Joseph. *Young and Restless 2011*. CEOs for Cities. 2011. http://www.ceosforcities.org/work/young_and_the_restless.
[41] Berg, Nate. "Downtown Detroit's Big Booster." *The Atlantic Cities*. January 12, 2012. http://www.theatlanticcities.com/jobs-and-economy/2012/01/downtown-detroits-big-booster/932.
[42] Urban Land Institute, op cit.
[43] Spivak, Jeffrey. "Urban Office Momentum." *Urban Land*. Urban Land Institute. September 14, 2011. http://urbanland.uli.org/Articles/2011/September/SpivakUrbanOffice.

nearing 25 percent, the owner of a 630-acre suburban office park in Henrico County, Virginia, noted, "People want to spend less on transportation, they want more time, they want a different lifestyle. And they are voting with their pocketbooks… Companies want the choice for their employees to live close to their jobs, or they will go somewhere else."[44] The owners association for the office park has developed a plan to convert the area into a mixed-use town center that will enable people to live close by and walk to work.

Exhibit 6. Quicken Loans in Detroit, Michigan. Quicken Loans is located in the commercial hub of downtown Detroit next to Campus Martius Park, a public square and year-round destination for residents and visitors. The district around the park has 20,000 employees, 750 residents, and a diverse collection of shops and restaurants.
Source: Campus Martius Park. "Welcome." www.campusmartiuspark.org. Accessed April 11, 2013. Photo source: Scott Smithson via flickr.com.

Regardless of housing preferences, companies in a central location with multiple options for how employees, customers, and clients can reach them have a competitive advantage over companies that can be reached only by a relatively long drive. Long commutes or lengthy travel times to obtain goods or services can be a drain on household finances. A 2006 study of 28 metro areas across the country found that on average, working families spent 57 percent of their incomes on housing and transportation costs and spent more on transportation than on housing.[45] Long commutes can also have negative effects on employees' health. A national Gallup poll conducted in 2009 and 2010 found that the longer a person's commute, the more likely he or she was to experience both health problems and adverse emotional conditions.[46] Likewise, a 2012 study found that commuting distance was adversely associated with physical activity, cardiorespiratory fitness, obesity, and risk factors such as high cholesterol levels and high blood pressure.[47] A comparison of commuters in metropolitan New York City found that after controlling for income, education, race, and geographic location, people who drove to work experienced significantly greater stress and had a more negative mood than people who took the train to work.[48] Companies are likely to better retain employees who are happier, healthier, and can easily get to work.

[44] Southern Environmental Law Center. *Smart Growth is Smart Economics: Sustainable Development in the Greater Richmond Region.* 2010. http://psgrichmond.org/cms/content/smart-growth-smart-economics-sustainable-development-greater-richmond-region-selc-2010.

[45] Lipman, Barbara. *A Heavy Load: The Combined Housing and Transportation Burdens of Working Families*. Center for Housing Policy. 2006. http://www.nhc.org/media/documents/pub_heavy_load_10_06.pdf.

[46] Crabtree, Steve. "Wellbeing Lower Among Workers With Long Commutes." Gallup, Inc. August 13, 2010. http://www.gallup.com/poll/142142/Wellbeing-Lower-Among-Workers-Long-Commutes.aspx.

[47] Hoehner, Christine M., Carolyn E. Barlow, Peg Allen, and Mario Schootman. "Commuting Distance, Cardiorespiratory Fitness, and Metabolic Risk." *American Journal of Preventive Medicine*. 42(6):571-578. 2012.

[48] Wener, Richard E., and Gary W. Evans. "Comparing Stress of Car and Train Commuters." *Transportation Research Part F: Traffic Psychology and Behaviour* 14(2): 111-116. 2011.

IV. Smart Growth Places Can Improve Retail Sales

Exhibit 7. Home Depot in Chicago. Home Depot opened a two-story store that fronts North Halstead Street in the Lincoln Park neighborhood of Chicago. It not only changed the conventional layout of its store to fit the setting, but it also carries a different mix of merchandise designed to meet the needs of urban residents.
Photo source: Payton Chung via flickr.com.

Retailers, restaurants, and other businesses serving local customers can benefit from being in compact, mixed-use commercial districts thanks to changing preferences in how and where people want to shop. The continuing growth of online retailing is changing the ways that people buy things. Brick-and-mortar stores tend to be strongest in retail segments with products that are not easily sold online and/or where the experience of the shopping trip rivals the importance of the product itself.[49] Many large retailers, including Sears, Home Depot, Best Buy, Wal-Mart, and Staples are shrinking their store footprints in urban markets to attract consumers with new shopping habits and preferences.[50] Densely populated urban locations are predicted to be the "sure thing" for retail growth in 2013, in part because these locations can serve large numbers of both residents and daytime employees.[51]

An analysis of demand for retail locations in central business districts relative to the metropolitan area where they are located found that in eight out of 15 cities, annual rent growth in central business districts outpaced growth in the metropolitan area over a five-year period. Averaged over all 15 cities, the rental rate growth in central business districts was more than 250 percent greater than in metropolitan areas as a whole.[52] Central business districts tend to be walkable locations with a variety of services and amenities within easy reach. These results are thus consistent with research showing that walkability increases demand for retail and office property. A national analysis of office and retail

[49] Gordon, Stephen. "In the Future Everything Will Be A Coffee Shop." *The Speculist*. December 26, 2011. http://blog.speculist.com/scenarios/the-coffee-shop-take-over.html.
[50] Bustillo, Miguel. "As Big Boxes Shrink, They Also Rethink." *The Wall Street Journal.* March 3, 2011. http://online.wsj.com/article/SB10001424052748704728004576176601936377760.html.
[51] Brown, Garrick H. and Matt Kircher. *U.S. National Retail Report 2013 Forecast.* n.d. Chainlinks Retail Advisors. http://www.pentadproperties.com/chainlinks-and-pentad-properties-release-2013-national-retail-forecast.
[52] Lynn, David J. "Renewed Urbanization Will Drive Change in Retail Strategies." *National Real Estate Investor.* April 6, 2011. http://nreionline.com/retail/renewed-urbanization-will-drive-change-retail-strategies.

properties found that on a 100-point scale, a 10-point increase in walkability was associated with a 9 percent increase in market value and a 7 percent higher net operating income.[53]

A walkable location can be a valuable marketing tool for businesses. More than 10,000 real estate websites now use the Walk Score tool to help market their properties by highlighting the walkability and transit accessibility of the surrounding neighborhood.[54] Walk Score measures an address's walkability by awarding points based on the variety of services and amenities located within one mile. The travel websites Hipmunk and the AARP® Travel Center added Walk Score ratings to their hotel listings, suggesting that the companies recognized that many travelers consider a hotel's walkability and proximity to amenities when booking reservations.

A pedestrian- and bicyclist-friendly environment has had direct economic advantages for merchants across the country. A study that classified 66 places within the Washington, D.C., metropolitan region based on their walkability found that a 19-point increase in walkability (out of 94 possible points) was associated with an 80 percent increase in retail sales and a nearly $7 per square foot increase in retail rents.[55] Walkable places clustered near others in larger walkable districts performed better than more isolated walkable places. Gross retail rents in walkable districts were nearly 50 percent higher, and retail sales were nearly 125 percent greater.

Exhibit 8. Walkable neighborhood in Washington, D.C. Areas like this stretch of 18th Street NW, just north of Dupont Circle, are easy to navigate on foot. Stores and restaurants in the neighborhood benefit from having so many residents and visitors walk by.
Photo source: Ted Eytan via flickr.com.

More evidence of the retail advantages of more walkable and attractive

[53] Pivo, Gary, and Jeffrey D. Fisher. "The Walkability Premium in Commercial Real Estate Investments." *Real Estate Economics* 39(2): 185-219. 2011.
[54] Walk Score. "10,000+ Sites Now Using Walk Score Professional." July 19, 2011. http://blog.walkscore.com/2011/07/10000-sites-now-using-walk-score-professional.
[55] Leinberger and Alfonzo, op. cit. The study's walkability metric was based on 10 characteristics: "aesthetics (attractiveness, open views, outdoor dining, maintenance), connectivity (potential barriers such as wide thoroughfares), density (building concentrations and height), form (streetscape discontinuity), pedestrian amenities (curbcuts, sidewalks, street furniture), personal safety (graffiti, litter, windows with bars), physical activity facilities (recreational uses), proximity of uses (presence of non-residential land uses), public spaces and parks (playgrounds, plazas, playing fields), and traffic measures (signals, traffic calming)."

environments comes from cities that have made improvements to neighborhoods and seen retail businesses thrive. In places as varied as West Palm Beach, Florida;[56] Lancaster, California;[57] and Raleigh, North Carolina,[58] projects that widened sidewalks; calmed vehicle traffic; and added features such as crosswalks, street trees, improved lighting, and signage helped increase business activity and attract private investment. New York City found that after transforming an underused parking area on Pearl Street in Brooklyn into a pedestrian plaza, retail sales at local businesses increased 172 percent. In Manhattan, after a curb lane was converted to a seating area along Pearl Street, sales at businesses along the street increased by 14 percent.[59] In Livermore, California, a $12.5 million streetscape project converted a four-lane highway to a two-lane pedestrian-oriented main street. In the three years following completion of the project, downtown retail sales grew 15 percent.[60]

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[56] Rush, Natalie, Laurie Actman, Patrick McMahon, and Henry Renski. "Street Redesign for Revitalization." *PEDSAFE – Pedestrian Safety Guide and Countermeasure Selection System*. U.S. Department of Transportation, Federal Highway Administration. 2002. http://www.walkinginfo.org/pedsafe/casestudy.cfm?CS_NUM=16.

[57] National Complete Streets Coalition and Smart Growth America. *Complete Streets Stimulate the Local Economy*. 2012. http://www.smartgrowthamerica.org/complete-streets/complete-streets-fundamentals/factsheets/economic-revitalization.

[58] Burden, Dan, and Todd Litman. "America Needs Complete Streets." *ITE Journal* 81(4): 36-43. 2011.

[59] New York City DOT. *Measuring the Street: New Metrics for 21st Century Streets.* 2012. http://www.nyc.gov/html/dot/downloads/pdf/2012-10-measuring-the-street.pdf.

[60] Dono, Andrea L. "Livermore, California: Celebrating Wine Country." *Main Street Story of the Week.* National Trust for Historic Preservation. 2009. http://www.preservationnation.org/main-street/main-street-news/2009/02/livermore-california.html.

V. Many Companies Are Making the Move to Downtown Locations

A strong indicator of the business advantages of centrally located, compact, walkable places is the trend of corporations moving to these locations from outlying suburbs.[61] After occupying single-use, isolated complexes on the suburban fringe during the last quarter of the 20th century to take advantage of cheap land and create self-contained environments, some companies are discovering the drawbacks. These locations can isolate employees, weaken companies' ability to understand and respond to major shifts in industries and markets, and limit the available talent pool.[62] Retailers who have concentrated on suburban locations are also making the move into downtown areas to better serve their customer base and increase profits. Companies that have made the move to downtown locations include:

- Motorola Mobility announced in 2012 that it would move its headquarters and 3,000 employees from a northern Chicago suburb it had occupied for 18 years to downtown, in part to increase creativity and innovation among workers and to increase access to the talent pool of Chicago's universities.[63] Motorola Mobility's chief executive officer said of the move, "We're thrilled to bring our employees to downtown Chicago and infuse our company with the vibrant energy of the city."[64]
- Rather than pursue a suburban greenfield site, technology firm General Datatech refurbished a downtown Dallas building originally built as a dairy in 1958 to create a place with character and texture that also has a better environmental footprint. "That we were able to create such a facility out of an old dairy factory and preserve a bit of Dallas history makes it all the more satisfying," said the company's founder and chief executive officer.[65,66]
- Blue Cross/Blue Shield of Michigan moved over 3,000 workers from suburban Southfield, Michigan, into a downtown Detroit office tower, consolidating its regional workforce. The company saved $30 million in long-term real estate costs and reduced its office space use, and over 90 percent of employees approve of the move.[67]
- Online retailer Zappos.com announced in 2010 that it would relocate its headquarters from suburban Henderson, Nevada, to a renovated downtown Las Vegas building in 2013. The company's plans include redeveloping the surrounding area with high-rise residences, stores,

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[61] Spivak, op. cit.

[62] Baeb, Eddie. "Corporate Campuses in Twilight." *Crain's Chicago Business*. May 30, 2011. http://www.chicagobusiness.com/article/20110528/ISSUE01/305289984/crains-special-report-corporate-campuses-in-twilight.

[63] Kukec, Anna Marie. "Motorola Mobility: Farewell Libertyville, Hello Chicago." *Daily Herald*. July 27, 2012. http://www.dailyherald.com/article/20120726/news/707269751/?interstitial=1.

[64] Presta, John. "Mayor Emanuel announces Motorola Mobility Moving to Merchandise Mart in Chicago." *Examiner.com*. July 28, 2012. http://www.examiner.com/article/mayor-emanuel-announces-motorola-mobilty-moving-to-merchandise-mart-chicago.

[65] Brown, Steve. "High-Tech Firm Moves to Refurbished Dallas Building." *Dallas Morning News*. April 14, 2011. http://www.dallasnews.com/business/commercial-real-estate/20110414-high-tech-firm-moves-to-refurbished-dallas-building.ece.

[66] Perez, Christine. "General Datatech Unveils New HQ." *RealPoints*. April 19, 2011. http://realpoints.dmagazine.com/2011/04/general-datatech-unveils-new-hq/.

[67] Walsh, Tom. "Blue Cross to Celebrate Moving 3,400 workers to downtown Detroit." *Detroit Free Press*. June 6, 2012. http://www.freep.com/article/20120606/COL06/206060407/Blue-Cross-to-celebrate-moving-3-400-workers-to-downtown-Detroit.

entertainment, and technology business incubators. Zappos' founder wants a location where spontaneous interactions leading to better ideas and stronger relationships can readily occur, noting that, "When you're in a city, the bar or the restaurant becomes an extended conference room." [68]

- Colliers International, a real estate services company, moved from the suburbs to downtown Reno in 2012. A senior vice president explaining the reasons for the move said, "It's central, it's wonderful to walk everywhere. The office team walks to their meetings. You can walk to restaurants. We had a Colliers event at the (Reno Aces) ballpark, and we walked to that."[69]
- Target Corporation launched a new urban format store called City Target to help boost company profits by better meeting the needs of their urban customers. The neighborhood around their new store in Chicago's downtown Loop supports 300,000 workers that spend more than $1 billion annually in local stores.[70] Sales in the first six City Target stores have been strong, especially over the important holiday season.[71]
- In historic downtown Los Angeles, a surge of new retail stores opened or announced plans to open in 2013 including two grocery stores and national chains like Ross Dress for Less, Zara, and Sport Chalet. The new businesses helped fill long-vacant storefronts and signal a new optimism among retailers about the potential to profit in a downtown location.[72]
- Relocations to central business districts are occurring in small towns as well. Excelda Manufacturing in Brighton, Michigan (population 7,475 in 2011), chose to locate its corporate headquarters downtown at the end of 2012. The chief financial officer said that it chose Brighton because it is "vibrant, dynamic, and energetic" and that being downtown will help it attract younger employees.[73]

Real estate experts expect the corporate migration to downtowns and compact suburban nodes to continue.[74] The companies mentioned here have recognized that central business districts in cities and small towns can provide an atmosphere that stimulates innovation and attracts the workers they need.

[68] Gallagher, Leigh. "Tony Hsieh's New $350 Million Startup." *CNN/Money*. January 23, 2012. http://tech.fortune.cnn.com/2012/01/23/tony-hsieh-las-vegas-zappos.
[69] Robison, Mark. "Destination downtown: Businesses returning to more vibrant Reno core." *RGJ.com.* April 27, 2013. http://blogs.rgj.com/renorebirth/2013/04/27/destination-downtown-businesses-returning-to-more-vibrant-reno-core.
[70] Townsend, Matt. "Target's City Ambitions." *BloombergBusinessweek.* May 31, 2012. http://www.businessweek.com/articles/2012-05-31/targets-city-ambitions.
[71] The Motley Fool. "Target Corporation (TGT): Will Red Card and Canadian Expansion Help This Retailer Hit the Bulls-eye?" *Insider Monkey.* June 14, 2014. http://www.insidermonkey.com/blog/target-corporation-tgt-will-red-card-and-canadian-expansion-help-this-retailer-hit-the-bulls-eye-171400.
[72] "Even More Retail Momentum." *Los Angeles Downtown News*. July 12, 2013. http://www.ladowntownnews.com/opinion/even-more-retail-momentum/article_060f3346-eb4c-11e2-b9dd-001a4bcf887a.html.
[73] Totten, Jim. "City is Thriving Despite State's Trend." *Livingston County Daily Press & Argus*. August 5, 2011. http://pqasb.pqarchiver.com/livingstondaily/access/2417149131.html?FMT=ABS&date=Aug+05%2C+2011.
[74] Spivak, op. cit.

VI. Conclusion

Businesses are constantly looking for a competitive advantage. A good location has been a longstanding element of business success. As people's preferences for where they live, work, and shop change, many businesses are now finding a competitive advantage to being in a central location that is walkable and has access to transit and a mix of homes and businesses. Places like Raleigh, North Carolina, and Silver City, New Mexico, have shown that companies recognize this trend. Soon after Red Hat's move, another software firm, Citrix Systems, announced it would move from the suburbs and follow Red Hat's lead to downtown Raleigh.[75] Meanwhile, the suburban office park that nurtured Red Hat during its early years is also changing. Research Triangle Park amended its master plan in 2012 to add homes, shops, and amenities and increase public transit.[76] As companies recognize the competitive advantages of smart growth places, more communities are adapting to meet those needs.

Companies have many choices when deciding where to locate within a region or a community. Central business districts and town centers can provide an environment that nurtures innovation and increases productivity, helps employee recruitment efforts, and leads to stronger sales.

[75] Ranii, David, and Matt Garfield. "Citrix Systems to Create 337 High-Paying Jobs in Downtown Raleigh Over Next Five Years." *newsobserver.com.* June 7, 2012. http://www.newsobserver.com/2012/06/07/2119504/citrix-systems-to-create-337-high.html.
[76] Goodtree, Hal. "RTP Unveils New Master Plan." November 12, 2012. http://carycitizen.com/2012/11/12/rtp-unveils-new-master-plan.

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